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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,434

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Yoshinobu Fujimura

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06/06/2007

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EXAMINER

PIZIALI, ANDREW T

ART UNIT

PAPER NUMBER

1771

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/528,434

Applicant(s)

FUJIMURA ET AL.

Examiner

Andrew T. Piziali

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-6 is/are pending in the application.
- 4a) Of the above claim(s) 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/19/07 & 3/18/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/19/2007</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment and declaration filed on 4/19/2007 have been entered.

### ***Election/Restrictions***

2. Newly submitted claim 6 is directed to an invention that is independent or distinct from the invention originally claimed for the following reason: Inventions of Group II (claim 6) and Group I (claims 1 and 3-5) are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process. The product as claimed can be made by another and materially different process such as by hand or with a machine that exerts the same amount of tension in the warp and weft.
3. Since applicant has received an action on the merits for the originally presented invention (Group I), this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 6 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 and 3-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Much like the addition of the word "type" to an otherwise definite expression extends the scope of the expression so as to render it indefinite, the addition of the word "kind" to an otherwise definite expression extends the scope of the expression so as to render it indefinite. See MPEP 2173.05(b).

***Claim Rejections - 35 USC § 102/103***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 4 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 5,662,990 to Scari.

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Regarding claims 1, 4 and 5, Scari discloses a glass cloth woven using a gripper loom, which is composed of warp yarns and weft yarns of the same glass yarn (same width) wherein a thickness of the glass cloth is 45 to 180  $\mu\text{m}$  (see entire document including column 6, lines 4-38, column 9, lines 1-13, column 10, lines 4-30, and claims 1-9).

Regarding the specifically claimed elongation rate, it appears that the glass cloth disclosed by the applied prior art inherently possesses the claimed elongation rate ratio because weaving the fabric with a gripper loom (equal low tension on the warp and weft) would result in no change in the yarn widths after the fabric is formed.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claim 4, Scari discloses that an average diameter of filaments of the glass yarn may be 5 to 9 microns and the number of filaments may be between 5.5 to 136 tex (claim 1).

Regarding claim 5, Scari discloses that the cloth may comprise matrix resin (column 10, lines 4-10).

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***Claim Rejections - 35 USC § 103***

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,662,990 to Scari as applied to claims 1, 4 and 5 above, and further in view of USPN 4,911,969 to Ogata.

Scari does not appear to mention making a cloth with a thickness of 10 to 30  $\mu\text{m}$ , but Ogata discloses that it is known in the woven glass fiber reinforced art to use a thickness of 30 to 100  $\mu\text{m}$  (see entire document including the paragraph bridging columns 5 and 6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the cloth with any suitable thickness, such as 30  $\mu\text{m}$ , because it is within the general skill of a worker in the art to select a known cloth thickness on the basis of its suitability and desired characteristics.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,662,990 to Scari as applied to claims 1, 4 and 5 above, and further in view of USPN 5,100,722 to Nakamura.

In the event that it is shown that Scari does not disclose the claimed glass filament diameter and/or number of filaments with sufficient specificity, Nakamura provides this conventional teaching showing that it is known in the art to use 50 to 1600 filaments having a diameter of 3 to 13  $\mu\text{m}$  (column 1, lines 61-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use 50 to 1600 filaments having a diameter of 3 to 13  $\mu\text{m}$  because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

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11. Claims 1, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,236,777 to Inoguchi in view of USPN 4,911,969 to Ogata in view of anyone of USPN 5,662,990 to Scari or USPN 4,090,002 to Rosenblum.

Regarding claims 1, 3 and 5, Inoguchi discloses a glass cloth that is composed of warp yarns and weft yarns of the same glass yarn (same width) (see entire document including column 1, lines 10-21 the Examples).

Inoguchi is silent with regards to a specific glass cloth thickness, therefore, it would have been necessary and thus obvious to look to the prior art for conventional glass cloth thickness. Ogata provides this conventional teaching showing that it is known in the woven glass fiber reinforced art to use a thickness of 30 to 100  $\mu\text{m}$  (see entire document including the paragraph bridging columns 5 and 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the glass cloth 30  $\mu\text{m}$  in thickness, motivated by the expectation of successfully practicing the invention of Inoguchi.

Inoguchi is silent with regards to a specific weaving method, therefore, it would have been necessary and thus obvious to look to the prior art for conventional weaving methods. Scari and Rosenblum provide this conventional teaching showing that it is known in the woven fiber reinforced art to weave the fabric by hand or by using a gripper loom (see entire documents including column 3, lines 8-14 of Rosenblum and column 9, lines 1-13 and claim 8 of Scari). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the glass cloth by hand or with a gripper loom, motivated by the expectation of successfully practicing the invention of Inoguchi.

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Regarding the specifically claimed elongation rate, it appears that the glass cloth disclosed by the applied prior art inherently possesses the claimed elongation rate ratio because weaving the fabric disclosed by Inoguchi by hand or with a gripper loom (equal low tension on the warp and weft) would result in no change in the yarn widths after the fabric is formed.

Regarding claim 5, Inoguchi discloses that glass cloth may comprise matrix resin (column 1, lines 10-21 and column 13, lines 31-35).

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,236,777 to Inoguchi in view of USPN 4,911,969 to Ogata in view of anyone of USPN 5,662,990 to Scari or USPN 4,090,002 to Rosenblum as applied to claims 1, 3 and 5 above, and further in view of USPN 5,100,722 to Nakamura.

Inoguchi is silent with regards to the specific number of glass yarn filaments per tow, therefore, it would have been necessary and thus obvious to look to the prior art for conventional number of glass yarn filaments. Nakamura provides this conventional teaching showing that it is known in the art to use 50 to 1600 filaments having a diameter of 3 to 13  $\mu\text{m}$  (column 1, lines 61-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use 50 to 1600 filaments having a diameter of 3 to 13  $\mu\text{m}$  motivated by the expectation of successfully practicing the invention of Inoguchi and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.



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***Response to Arguments***

13. Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

***Conclusion***

14. The following patent is cited to further show the state of the art with respect to gripper looms:

USPN 3,948,702 to Theissen (column 3, lines 34-40 and column 5, lines 61-68)

15. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

atp

977 5/30/07  
ANDREW PIZIALI  
PRIMARY EXAMINER